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TITLE: SURFACE ACOUSTIC WAVE RESONATOR ELEMENT, SURFACE ACOUSTIC WAVE RESONATOR, SURFACE-MOUNT SURFACE ACOUSTIC WAVE RESONATOR, AND METHOD OF MANUFACTURE THEREOF

PUBN-DATE: September 8, 1995

INVENTOR-INFORMATION:

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ABSTRACT:

A surface acoustic wave resonator having an extremely stable resonance frequency, a low equivalent series resistance and a high Q value can be accomplished by using a cantilevered resonator element that comprises an IDT and a reflector arranged on a piezoelectric body. Further, the Q value can be improved by enclosing this SAW resonator in a vacuum housing. The electrodes constituting the IDT are anodized to form thick oxide, which prevents them from short-circuiting due to foreign particles without deteriorating the characteristics. Such a SAW device, attached to a lead frame,

may be molded
with resin to provide a low-cost, surface-mount SAW device of
high reliability
and quality.

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TITLE: Surface-mount surface acoustic wave resonator and method
of mfr. - has
cantilevered element with anodized IDT electrodes and
lattice-type reflectors
on piezoelectric chip body

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PATENT-ASSIGNEE: SEIKO EPSON CORP[SHIH]

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ABSTRACTED-PUB-NO: US 5867074A

BASIC-ABSTRACT: The SAW resonator comprises a cantilevered resonator element (1) which may be vacuum housed with in a metal case (21). The element consists of an IDT (5) and lattice reflectors (6a,b) formed on a piezoelectric chip body (2). The connecting land areas of the elements's IDT electrodes are connected to leads (25a,b) held in a hermetic terminal (22) having a glass core (23) within a metal cylinder (24).

The device may be moulded with resin, and the IDT electrodes are anodized to form a thick oxide.

ADVANTAGE - Low cost and reliable SAW resonator having stable frequency, low equivalent series resistance, and high Q value. Short circuit of IDT electrodes is prevented by anodisation.

ABSTRACTED-PUB-NO: WO 9524075A

EQUIVALENT-ABSTRACTS: The SAW resonator comprises a cantilevered resonator element (1) which may be vacuum housed with in a metal case (21). The element consists of an IDT (5) and lattice reflectors (6a,b) formed on a piezoelectric chip body (2). The connecting land areas of the elements's IDT electrodes are connected to leads (25a,b) held in a hermetic terminal (22)

having a glass core
(23) within a metal cylinder 24 .

The device may be moulded with resin, and the IDT electrodes are anodized to form a thick oxide.

ADVANTAGE - Low cost and reliable SAW resonator having stable frequency, low equivalent series resistance, and high Q value. Short circuit of IDT electrodes is prevented by anodisation.

CHOSEN-DRAWING: Dwg.5/29

TITLE-TERMS:
SURFACE MOUNT SURFACE ACOUSTIC WAVE RESONANCE METHOD MANUFACTURE
CANTILEVER
ELEMENT IDT ELECTRODE LATTICE TYPE REFLECT PIEZOELECTRIC CHIP
BODY

DERWENT-CLASS: U14 V06

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